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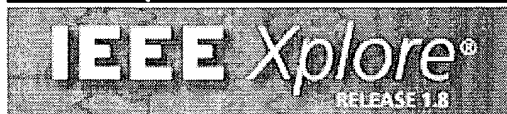
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## Computerized characterization of contrast enhance patterns for classifying pulmonary nodules

Minami, K. Kawata, Y. Niki, N. Mori, K. Ohmatsu, H. Kakinuma, R. Eguchi, K. K. M. Kaneko, M. Moriyama, N.

Tokushima Univ., Japan;

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### Abstract:

This paper presents a computerized classification scheme of pulmonary **nodu** contrast enhanced **dynamic** CT images. Conventionally, we extracted 3-D **no** images by using a deformable surface model. However, there was a limit in **s** the 3-D **nodule** images contacted with vessels and bronchi. In order to imprc **segmentation** accuracy of the 3-D **nodule** images, we developed a software eliminate the leaked region of the 3-D **nodule** image due to vessels and bron interactively. Using our data set including 68 cases (28 benign and 40 malign we demonstrate how the **segmentation** accuracy affects the classification ac our scheme

### Index Terms:

cancer computerised tomography feature extraction image classification image en image **segmentation** lung software tools 3D **nodule** image extraction benign lesi bronchi cancer classification accuracy computerized classification contrast enhan CT images contrast enhancement patterns image **segmentation** accuracy maligna pulmonary **nodules** classification **segmentation** accuracy software tool vessels

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74	BRS	L78	0	77 and dynamic\$4 near4 programm\$4	USPA T	2004/11/0 8 13:41	
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80	BRS	L83	188	74 and ((continuous\$5) near4 (border or edg\$4 or bounadr\$4))	USPA T	2004/11/0 8 13:43	
81	BRS	L84	0	83 and dynamic\$4 near4 programm\$4	USPA T	2004/11/0 8 13:41	
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83	BRS	L86	8	85 and parameters	USPA T	2004/11/0 8 13:42	
84	BRS	L87	60	nodul\$4 and ((continuous\$5) near4 (border or edg\$4 or bounadr\$4))	USPA T	2004/11/0 8 13:43	
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86	BRS	L89	3	((estimat\$) near4 (continuous\$5) near4 (border or edg\$4 or bounadr\$4))	USPA T	2004/11/0 8 13:45	
87	BRS	L90	2	89 and dynamic\$4	USPA T	2004/11/0 8 13:44	
88	BRS	L91	1	((((estimat\$) near4 (border or edg\$4 or bounadr\$4) near4 (nodul\$4)))	USPA T	2004/11/0 8 13:46	

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